

10971990-2

AMENDMENT

REMARKS

The Specification has been amended to correct an informality. Claims 35
5 and 43 have been amended to address Examiner's concerns under §102, and
§112. Claim 44 has been added. Claims 35-44 remain in the application. Fig. 4
has been corrected as suggested by the Examiner. A marked up version of
changes is found in Appendix A. Further examination and reconsideration of the
application, as amended, is hereby requested.

10

In Section 2 of the Office Action, the Examiner objected to the drawings
because in Fig. 4 "YES" at block "56" should be "NO". In response to this
objection, Applicant is submitting herewith a proposed drawing correction to Fig.
4. Approval of this drawing correction is respectfully requested.

15

In Section 3 of the Office Action, claims 42 and 43 were rejected under 35
USC § 112, second paragraph as being indefinite for failing to particularly point
out and distinctly claim the subject matter which Applicant regards as the
invention. Specifically, the Examiner questioned how the steps of "issuing ..." and
20 "evacuating ..." in claim 42 are different from the steps of "injecting ..." and
"withdrawning ..." in claim 43, respectively. Applicant respectfully traverses this
rejection. Claim 42 is directed to a method of "regulating pressure in a print
cartridge" and Claim 43 is directed to a method of "recharging a print cartridge"
having the method for regulating pressure as in claim 42". In claim 42, "issuing ..."
25 is a step for controlling the fluid flow into the cartridge based on sensed pressure
within the local reservoir. In claim 43, "injecting ..." is a step of inserting fluid into a
fluid source within the print cartridge such as described in the specification for Fig.
10 on page 16, lines 8-15 using syringe 134. Similarly, in claim 42, the step of
"evacuating ..." is a step of evacuating air from the local reservoir when the
30 pressure sensed is more than a second predetermined limit. In claim 43, the step of
"withdrawning ..." is in regard to removing air from the vacuum reservoir 120
such as with syringe 136.

10971990-2

AMENDMENT

Also the Examiner states that in claim 43 "the print cartridge" in lines 3 and 4 lack antecedent basis. Claim 43 has been amended to indicate that the print cartridge referred to is that in the preamble of claim 42. Accordingly, withdrawal of the rejection under 35 USC 112 is respectfully requested for claims 42 and 43.

5

In Section 4 of the Office Action, the Examiner rejected claims 35 and 38-41 under 35 USC 102(b) as being anticipated by Boyd et al.

In regard to claim 35, Applicant has amended claim 35 to more particularly define and distinguish Applicant's invention over the art made of record. Claim 10 35, as amended, now claims "activating a second flow valve *in parallel with said first flow valve to a fluid source.*" This limitation is not disclosed, taught or suggested by Boyd alone or in combination with the art made of record. In Boyd, the backup valve 18 is in series with the throttling valve 38 as seen in Figs. 1-6 of Boyd and as discussed as prior art by the Applicant in regards to Applicant's Fig. 15 1. Conversely, Applicant's claimed invention has the first valve and the second valve in parallel to a fluid source as seen in Applicant's Figs. 2, 3, 6A-C, 8A-D, 9, 10 and 11 and discussed throughout the specification and in particular on page 17, line 30. By having the two valves in parallel, a staged flow of fluid of at least two flow rates is available into the print cartridge. (See Applicant's summary). 20 20 Accordingly, claim 35, as amended, is not anticipated by Boyd.

In regard to claims 38-41, Applicant respectfully traverses the Examiner's assertion that claims 38-41 are anticipated by Boyd. As noted previously, Boyd discloses a backup valve 18 that is in fluidic series with the throttling valve 38 as seen in Figs. 1-6 of Boyd. Claim 38 is a method claim that has the limitation of 25 "issuing a first flow of fluid into the *local reservoir* from the fluid source when the pressure is less than a first predetermined limit". This step is similar to that performed by the throttling valve 38 of Boyd. However, claim 38 has the additional step of "issuing a second flow of fluid into the local reservoir from the fluid source when the pressure is less than a second predetermined limit." 30 30 Conversely, Boyd's s backup valve 18 issues a second flow of fluid into the "intermediate chamber 51" (and not the "local reservoir" as Applicant is claiming) when the pressure is less than a second predetermined limit. Accordingly, Boyd does not disclose, teach, or suggest Applicant's steps of issuing a first and second flow of fluid into the "local reservoir".

10971990-2

AMENDMENT

Claims 39, 40 and 41 depend on claim 38 and are deemed patentable based at least on the patentability of claim 38. In addition, for claim 39, Boyd does not disclose Applicant's claimed step of "evacuating air from the local reservoir when the pressure is more than a *third* predetermined limit." In Boyd,

5 the throttling valve 38 operates in response to a first predetermined limit and the backup valve 18 in response to a second predetermined limit. However, Boyd does not disclose how the throttling valve 38 or backup valve 18 responds to a "third" predetermined limit to evacuate air from the local reservoir. The Examiner asserts that via 47 of Boyd evacuates air from the local reservoir when the

10 pressure is more than a third predetermined limit. Applicant respectfully traverses the Examiner's statement. Via 47 is not controlled but continuously open to maintain the interior of the bag at atmospheric pressure (col. 3, lines 58-61). Therefore, via 47 cannot evacuate air from the local reservoir when the pressure is more than a third predetermined limit as it is continuously open to the air

15 external to the print cartridge. Accordingly, Boyd does not anticipate Applicant's claim 39.

Also in Section 4 of the Office Action, the Examiner rejected claims 37, 42, and 43 under 35 USC 102(b) as being anticipated by Boyd. Applicant respectfully traverses the Examiner's rejection. In particular for claim 37, the Examiner

20 asserts that Boyd's back up valve 18 is equivalent to Applicant's claimed vacuum valve. However, Applicant is claims the step of "*activating* a vacuum valve if the pressure is *more* than a second predetermined limit" and "*deactivating* the vacuum valve if the pressure is *not more* than a second predetermined limit." In the specification, the Applicant discloses that activating is equivalent to opening

25 the vacuum valve and deactivating is equivalent to closing the vacuum valve (see page 9, lines 14-19). Conversely, Boyd discloses that the back up valve 18 "remains open" (i.e. activated) when the pressure is "less" (not "more" as Applicant is claiming) than a second predetermined limit (see Col. 4, line 58 through Col. 5, line 17). In Boyd, the back up valve remains activated until the

30 pressure within the housing is less than about atmospheric pressure (the second predetermined limit) and then deactivated or closed to prevent pressure that is higher than atmospheric pressure from causing the ink within to be pushed out the printhead. Therefore, Boyd's back up valve's operation does not disclose, teach, or suggest Applicant's claimed invention.

10971990-2

AMENDMENT

Similarly for claim 42, the step of "evacuating air from the local reservoir when the pressure is *more* than a second predetermined limit" is not disclosed by Boyd. Boyd discloses not evacuating air but evacuating "fluid" (such as the ink) when the pressure is "*less*" than a second predetermined limit (about atmospheric pressure). Furthermore, when the pressure in the local reservoir of Boyd is "more" than the atmospheric pressure, the back up valve 18 is closed (see Figs. 3 and 6) thereby preventing both fluid and/or air from being evacuated. Accordingly, Applicants claim 42 is not disclosed, taught or suggested by Boyd.

For claim 43, dependent claim 43 depends on independent claim 42. Boyd
10 does not disclose a method of recharging the print cartridge (as previously discussed for §112 above) having the method of regulating pressure as in claim 42 since Boyd does not disclose, teach, or suggest Applicant's method of regulating pressure as previously discussed for claim 42.

Accordingly, withdrawal of the rejection under 35 USC 102(b) for claims 35,
15 37, and 38-43 and allowance of these claims is respectfully requested.

In Section 5 of the Office action, the Examiner objected to claim 36 (claim 46 is assumed a typo) as being dependent upon a rejected base claim but that it would be allowable if rewritten in independent form to include all the limitations of
20 the base claim. Applicant respectfully thanks the Examiner for allowance of this claim. According claim 44 has been added to combine the limitations of claims 35 and 36. Claim 44 is believed patentable and allowance of claim 44 is respectfully requested. Claim 36 has not be cancelled but retained as claim 35 has been amended to incorporate an additional limitation. Claim 36 is believe patentable at
25 least based on the patentability of claim 35, as amended and allowance of claim 35 is respectfully requested.

JUN-16-2004 13:20 FROM HP LEGAL CORVALLIS

TO 917037464570 P.10/13

10971990-2

AMENDMENT

Applicant believes his claims as amended are patentable over the art of record, and that the amendments made herein are within the scope of a search properly conducted under the provisions of MPEP 904.02. Accordingly, claims 35-44 are deemed to be in condition for allowance, and such allowance is respectfully requested.

I hereby certify that this correspondence is being deposited with the United States Postal Service on 4/10/02, as first class mail in an envelope addressed to:

Assistant Commissioner for Patents,
Washington, DC 20231.

Timothy F. Myers

Timothy F. Myers

4/10/02

Date of Signature

Respectfully Submitted,
M. Hauck

By: Timothy F. Myers
Timothy F. Myers
Patent Attorney
Registration No.
42,919

Hewlett-Packard Company
Legal Department
1000 NE Circle Blvd.
Corvallis, OR 97330
Telephone: (541)715-8442
Fax: (541)715-8581